IN THE SPECIFICATION:

Please insert the following new section at page 1, just below the title:

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims the benefit under 35 USC 119 of U.S. provisional application number 60/441,354, filed September 27, 2002.

Please rewrite the paragraph at page 2, lines 6-8, so that it reads as follows:

In addition, an attenuation pole filter shown in Fig. 12 added with an attenuation pole inductance L ~~(330)~~ 330 is used as a high-performance filter.

Please rewrite the paragraph at page 2, lines 9-14, so that it reads as follows:

Fig. 12 is a circuit diagram illustrating that a two-port circuit ~~1 (380)~~ 380 of a traditional ladder type SAW filter formed of three series arms ~~S1 (310), S2 (311) and S3 (312)~~ 310, 311, and 312 and two shunt arms ~~P1 (320) and P2 (321)~~ 320 and 321 is serially connected to a two-port circuit ~~2 (381)~~ 381 provided with an attenuation pole inductance ~~L (330)~~ 330.

Please rewrite the paragraph at page 2, lines 15-22, so that it reads as follows:

As described in JP-A-10-163808, in the SAW filter with attenuation poles shown in Fig. 12, attenuation poles are formed in an attenuation band on the high frequency side of the pass band by the attenuation pole inductance ~~L (330)~~ 330, in addition to the characteristics of the traditional ladder type SAW filter. The attenuation poles can

provide certain high attenuation characteristics in the attenuation characteristics on the high frequency side of the pass band.

Please rewrite page 2, line 24, so that it reads as follows (essentially deleting it):

~~SUMMARY OF THE INVENTION~~

Please rewrite the paragraph at page 3, lines 13-17, so that it reads as follows:

On this account, the circuit shown in Fig. 12 is used when attenuation poles need to be formed in the attenuation band on the high frequency side, and the traditional bonding wire is used for the attenuation pole inductance L ~~(330)~~ 330 shown in Fig. 12.

Please rewrite the paragraph at page 3, lines 18-22, so that it reads as follows:

In this example, ~~the~~ traditional bonding wire is used as the inductance L to vary the frequency of the attenuation poles by this L value, and the characteristics are changed to realize certain high attenuation. However, satisfying characteristics cannot be obtained yet.

Please rewrite the paragraph at page 3, line 23 to page 4, line 7, so that it reads as follows:

Furthermore, high attenuation characteristics are demanded ~~to provide~~ in the attenuation band on the low frequency side, and attenuation poles need to be formed in the band. However, the traditional bonding wire is also used in the case. As a SAW filter with attenuation poles responding to this, a film is used in which the attenuation

pole frequency of the attenuation band on the low frequency side of the pass band is adjusted by using the traditional bonding wire of the shunt arms in the ladder type SAW filter. However, required characteristics are not satisfied in this case as well.

Please rewrite the paragraph at page 4, lines 20-23, so that it reads as follows:

SUMMARY OF THE INVENTION

In view of the problems mentioned above, an object of the invention is to provide a high-performance SAW filter having lower insertion loss in a pass band and high attenuation in an attenuation band on the low frequency side of the pass band.

Please rewrite the paragraph at page 7, line 25 to page 8, line 5, so that it reads as follows:

Fig. 12 is a diagram illustrating a circuit configuration in which ~~the~~ a two-port circuit ~~1 (380)~~ 380 of a ladder type SAW filter formed of three series arms ~~S1 (310), S2 (311) and S3 (312)~~ 310, 311, and 312 and two shunt arms ~~P1 (320) and P2 (321)~~ 320 and 321 is serially connected to ~~the~~ a two-port circuit ~~2 (381)~~ 381 provided with the attenuation pole inductance ~~L (330)~~ 330.

Please rewrite the paragraph at page 8, lines 14-19, so that it reads as follows:

The first embodiment is configured in which a two-port circuit for filtering ~~1 (180)~~ 180 formed of a ladder type SAW filter of two-stage π type is serially connected to a two-port circuit ~~2 (181)~~ 181 using an attenuation pole impedance Z_{11} ~~(140)~~ 140 serially connecting a resistance R_{11} to an inductance X_{11}, as depicted by solid lines in Fig. 1.

Please rewrite the paragraph at page 8, lines 20-24, so that it reads as follows:

More specifically, a series arm S1 ~~(110)~~ 110 is serially connected between an input terminal ~~IN (103)~~ 103 and an output terminal ~~OUT (104),~~ 104, and shunt ~~arm P1 (120) and P2 (121)~~ arms 120 and 121 are connected in parallel to the both ends of the series arm ~~S1 (110)~~ 110 for forming the ladder type SAW filter of two-stage π type.

Please rewrite the paragraph at page 8, line 25 to page 9, line 2, so that it reads as follows:

The two-port circuit for impedance ~~2 (181)~~ 181 is formed of the attenuation pole impedance Z_{11} ~~(140)~~ 140. The impedance Z_{11} ~~(140)~~ 140 is configured ~~of~~ as $R_{11} + jX_{11}$.

Please rewrite the paragraph at page 9, lines 3-7, so that it reads as follows:

The invention is characterized in that the two-port circuit for impedance ~~2 (181)~~ 181 is configured in which the pole frequency of the attenuation band on the low frequency side can be varied by the real part R_{11} and the imaginary part X_{11} of the attenuation pole impedance Z_{11}.

Please rewrite the paragraph at page 9, lines 11-20, so that it reads as follows:

Fig. 3 is a diagram illustrating a half circuit of the lumped constant equivalent circuit shown in Fig. 2 for describing the relationship between the characteristics and component devices of the first embodiment according to the invention. The lumped constant equivalent circuit shown in Fig. 2 is configured in which a two-port circuit of a π type filter formed of a series arm ~~S1 (410)~~ 410 having an impedance $2ZS_{11}$, and shunt

arms ~~P1 (420) and P2 (421)~~ 420 and 421, each having an impedance ZF_1, is serially connected to a two-port circuit formed of an impedance Z_{11} ~~(440)~~ 440 having $2R_{11}$ + $j2X_{11}$.

Please rewrite the paragraph at page 9, line 21 to page 10, line 2, so that it reads as follows:

In the half equivalent circuit shown in Fig. 3, a series arm ZS_{11} ~~(510)~~ 510 is connected between an input terminal ~~IN (560)~~ 560 and a terminal ~~M2 (570),~~ 570, a shunt arm ~~(520)~~ 520 having an impedance ZF_1 and an impedance ~~(540)~~ 540 having $R_{11} + jX_{11}$ are serially connected between the input terminal ~~IN (560)~~ 560 and an input terminal ~~E1 (561)~~ 561, and a node ~~of~~ between the shunt arm ~~ZF_1 (520)~~ 520 and the impedance Z_{11} ~~(540)~~ 540 is connected to a terminal ~~M3 (572).~~ 572.

Please rewrite the paragraph at page 10, lines 3-8, so that it reads as follows:

In Fig. 3, suppose ~~an~~ that the input impedance is Z_1 ~~where~~ when the terminal ~~M2 (570)~~ 570, the terminal ~~M3 (572)~~ 571 and a terminal ~~E2 (571)~~ 571 are opened, and ~~an~~ that the input impedance is Z_2 ~~where~~ when the terminal ~~M2 (570)~~ 570, the terminal ~~M3 (572)~~ 572, and the terminal ~~E2 (571)~~ 571 are ~~short-circuited,~~ short-circuited. Then Z_1 and Z_2 are given by Equation (1) and Equation (2), respectively.

Please rewrite the paragraph at page 10, lines 13-17, so that it reads as follows:

The characteristics of the first embodiment can be evaluated by converting the circuit shown in Fig. 1 to the lattice type circuit shown in Fig. 4 in equivalent circuit with

Z_1 and Z_2. An F matrix (four-terminal matrix [F]) in this case can be given by Equation (3).

Please rewrite the paragraph at page 11, lines 8-11, so that it reads as follows:

In addition to the conditions, the invention is characterized in that the attenuation pole frequency is formed also in the case where $Z_2 = Z_1$ and the attenuation pole impedance Z_{11} ~~(140)~~ 140 has ~~the~~ a real part and ~~the~~ an imaginary part.

Please rewrite Table 1 at page 11, so that it reads as follows:

Table 1

Configuration of resonators	Series arm ~~S1 (110)~~ 110	Shunt arm ~~P1 (120)~~ 120	Shunt arm ~~P2 (121)~~ u121
Intersection length (μm)	60	70	70
Logarithm	60	80	80

Please rewrite the paragraph at page 12, lines 12-15, so that it reads as follows:

More specifically, ~~the traditional bonding wire in which~~ the resistance value ~~can be~~ has traditionally been ignored and only the inductance acts as the impedance ~~is used to form~~ for attenuation poles in the attenuation band.

Please rewrite the paragraph at page 12, line 16 to page 13, line 2, so that it reads as follows:

In the meantime, as shown in Table 2, the invention can obtain ~~the~~ high attenuation characteristics in which at least a resistance component is increased in addition to the impedance of the traditional bonding wire and thus the attenuation pole

frequency and the attenuation characteristic can be varied without changing the pass band characteristics.

Please rewrite the paragraph at page 13, lines 19-23, so that it reads as follows:

Fig. 6 is an example of attenuation pole impedance using the bonding wire of the invention. The bonding wire of the invention is formed to be a connecting wire 102, and an ~~electrode 1~~ electrode on a piezoelectric substrate 100 side is connected to an ~~electrode 2~~ electrode on a package 101 side.

Please rewrite the paragraph at page 13, line 24 to page 14, line 6, so that it reads as follows:

Fig. 7 depicts an equivalent circuit of Fig. 6, in which an electrode 112 ~~(110)~~ connected to the ~~electrode 1~~ electrode on the piezoelectric substrate 100 side is connected to an electrode 113 ~~(111)~~ connected to the ~~electrode 2~~ electrode on a the package 101 side by a series circuit formed of a resistance R_{11} and an inductance L_{11}. More specifically, it shows that the impedance of the connecting wire 102 formed of the bonding wire of the invention is $R_{11} + j\omega L_{11}$.

Please rewrite the paragraph at page 14, lines 7-18, so that it reads as follows:

Moreover, an example that the reactive component of impedance can be adjusted is shown in Fig. 8. The bonding wire of the invention is formed to be a connecting wire ~~(1)~~ 126 and a connecting wire ~~(2)~~ 127 to connect an electrode ~~(1)~~ on a piezoelectric substrate ~~120~~ 115 side, an electrode ~~(2)~~ on a package ~~121~~ 116 side, ~~side~~ and an

electrode ~~(3)~~ on a package 122 side to each other. Furthermore, a capacitance substrate 123 for adjusting the reactive component is connected between the electrode ~~(2)~~ on the package ~~121~~ 116 side and the electrode ~~(3)~~ on the package 122 side through normal connecting wires ~~(C1)~~ 124 and ~~(C2) 125~~ 125, which ~~can ignore~~ have resistance values that can be ignored and are unrelated to the bonding wire of the invention.

Please rewrite the paragraph at page 14, line 19 to page 15, line 13, so that it reads as follows:

Fig. 9 depicts an equivalent circuit of Fig. 8, in which an electrode ~~133 (130)~~ 130 connected to the ~~electrode 1~~ electrode on the piezoelectric substrate ~~120~~ 115 side is connected to an electrode ~~134 (131)~~ 131 connected to the ~~electrode 2~~ electrode on the package ~~121~~ 116 side by a series circuit formed of a resistance R_{11} and an inductance L_{11}. An equivalent circuit is formed in which the electrode ~~134 (131)~~ 131 connected to the ~~electrode 2~~ electrode on the package ~~121~~ 116 side is connected to an electrode ~~135 (132)~~ 132 connected to the ~~electrode 3~~ electrode on the package 122 by a series circuit formed of a resistance R_{12} and an inductance L_{12}. Similarly, an equivalent circuit is formed in which the electrode ~~134 (131)~~ 131 connected to the ~~electrode 2~~ electrode on the package ~~121~~ 116 side and the electrode ~~135 (132)~~ 132 connected to the ~~electrode 3~~ electrode on the package 122 are connected to a capacitance C_{12} through normal connecting wires ~~that can ignore~~ with resistance values that can be ignored. More specifically, the equivalent circuit is formed in which the electrode ~~133 (130)~~ 130 is connected to the electrode ~~134 (131)~~ 131 by the circuit having $R_{11} + j\omega L_{11}$ and the

electrode ~~134 (131)~~ 131 is connected to the electrode ~~135 (132)~~ 132 by the circuit having $R_{12} + j\omega L_{12}$ and the circuit having $1/j\omega C_{12}$.

Please rewrite the paragraph at page 17, line 25 to page 18, line 6, so that it reads as follows:

In the second embodiment, a two-port circuit for filtering ~~1 (180)~~ 280 is configured ~~of~~ as a ladder type SAW filter of the two-stage π type having the same circuit configuration as that of the first embodiment, and a two-port circuit for impedance ~~2 (181)~~ 281 is configured ~~of~~ as a π type circuit using three impedances. Each of three impedances Z_{21} ~~(241)~~ 241, Z_{22} ~~(242)~~ 242 and Z_{23} ~~(243)~~ 243 is configured of a resistance R and an inductance X.

Please rewrite the paragraph at page 18, lines 7-9, so that it reads as follows:

More specifically, the two-port circuit for filtering ~~1 (180) configures the π type circuit of~~ 280 has one series arm ~~S1 (210)~~ 210 and two shunt arms ~~P1 (220) and P2 (221).~~ 220 and 221.

Please rewrite the paragraph at page 18, lines 10-14, so that it reads as follows:

The two-port circuit for impedance ~~2 (181) configures the~~ 281 is configured as a π type circuit ~~of~~ with an attenuation pole impedance Z_{21} ~~(241)~~ 241 having $R_1 + jX_1$, an attenuation pole impedance Z_{22} ~~(242)~~ 242 having $R_2 + jX_2$ and an attenuation pole impedance Z_{23} ~~(243)~~ 243 having $R_3 + jX_3$.

Please rewrite Table 3, at pages 18 and 19, so that it reads as follows:

Table 3

Configuration of resonators	series arm ~~S1 (110)~~ 210	shunt arm ~~P1 (120)~~ 220	shunt arm ~~P2 (121)~~ 221
Intersection length (μm)	60	70	70
Logarithm	80	80	80

Please rewrite the paragraph at page 19, line 5, so that it reads as follows:

$$Z_I = ZF_I*(ZS_I + Z_{SS})/(ZF_I + ZS_I + Z_{\text{~~33~~ 23}}) \qquad (7)$$